

Title (en)

HOT-ROLLED STEEL SHEET AND PRODUCTION METHOD THEREFOR

Title (de)

WARMGEWALZTES STAHLBLECH UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

TÔLE D'ACIER LAMINÉE À CHAUD ET PROCÉDÉ DE PRODUCTION S'Y RAPPORTANT

Publication

**EP 3150733 A1 20170405 (EN)**

Application

**EP 14893619 A 20140528**

Priority

JP 2014064150 W 20140528

Abstract (en)

A hot-rolled steel sheet has predetermined chemical composition, a sum of a Si content and an Al content is higher than 0.20% and lower than 0.81%, a microstructure includes, by area fraction, 90% to 99% of a ferrite, 1% to 10% of a martensite, and a bainite limited to 5% or less, the grain size of the martensite is 1 to 10  $\mu\text{m}$ , the X-ray random intensity ratio of a {211}<011> orientation which is parallel to a rolled surface of the steel sheet and is parallel to a rolling direction is 3.0 or less.

IPC 8 full level

**C22C 38/00** (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/38** (2006.01)

CPC (source: EP KR US)

**B22D 11/001** (2013.01 - EP US); **C21D 1/60** (2013.01 - EP US); **C21D 1/613** (2013.01 - EP US); **C21D 8/02** (2013.01 - EP US); **C21D 8/0221** (2013.01 - EP KR US); **C21D 9/46** (2013.01 - EP KR US); **C22C 38/00** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP KR US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/12** (2013.01 - EP US); **C22C 38/14** (2013.01 - EP US); **C22C 38/22** (2013.01 - KR); **C22C 38/26** (2013.01 - KR); **C22C 38/28** (2013.01 - EP KR US); **C22C 38/38** (2013.01 - EP KR US); **C21D 2211/008** (2013.01 - KR)

Cited by

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AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3150733 A1 20170405**; **EP 3150733 A4 20171108**; **EP 3150733 B1 20200422**; BR 112016027395 B1 20200505; CN 106460109 A 20170222; CN 106460109 B 20190129; ES 2793938 T3 20201117; JP 6191769 B2 20170906; JP WO2015181911 A1 20170420; KR 101914848 B1 20181102; KR 20160145794 A 20161220; MX 2016015397 A 20170222; PL 3150733 T3 20200824; US 10513749 B2 20191224; US 2017159149 A1 20170608; WO 2015181911 A1 20151203

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